

WHAT IS CLAIMED IS:

1. An immunogenic complex comprising gp120 covalently bonded to a fragment of CD4 or an equivalent thereof.
2. The immunogenic complex of Claim 1 wherein said fragment of CD4 comprises the first and second domains of CD4.
3. The immunogenic complex of Claim 1 wherein cryptic epitopes are revealed.
4. The immunogenic complex of Claim 1 wherein said gp120 is covalently cross-linked to said fragment of CD4.
5. A composition comprising the immunogenic complex of Claim 1.
6. The composition of Claim 5 further comprising an adjuvant composed of aluminum phosphate gel.
7. A composition comprising the immunogenic complex of Claim 1 and a pharmaceutically acceptable carrier.
8. An antibody reactive with the immunogenic complex of Claim 1.
9. The antibody of Claim 8, which is a monoclonal antibody.
10. An immortalized cell line that produces an antibody as recited in Claim 9.
11. A method of raising neutralizing antibodies against HIV, comprising administering to a subject an immunogenically effective amount of a complex of gp120 covalently bonded to a fragment of CD4 or an equivalent thereof in a pharmaceutically acceptable carrier.
12. The method of Claim 11 wherein the fragment of CD4 comprises the first and second domains of CD4.
13. A method for the detection of HIV antigen in a test fluid, comprising contacting the test fluid with an antibody raised against an immunogenic complex of gp120 covalently bonded to a fragment of CD4 or an equivalent thereof, and

detecting the presence of immune complexes formed between antigen in the test fluid and said antibody.

14. A test kit for conducting the method of Claim 13, comprising said antibody that is bound to a solid substrate or labelled and instructions for performing the detection method.

15. A vaccine comprising an immunogenically effective amount of a complex of gp120 covalently bonded to a fragment of CD4 or an equivalent thereof in a pharmaceutically acceptable medium.

16. An immunogenic complex comprising gp120 covalently bonded to a CD4 equivalent molecule.

17. The immunogenic complex of Claim 16 wherein cryptic epitopes are revealed.

18. The immunogenic complex of Claim 16 wherein said CD4 equivalent molecule is a scorpion toxin-based CD4 mimetic miniprotein.

19. The immunogenic complex of Claim 16 wherein said gp120 is covalently cross-linked to said CD4 equivalent molecule.

20. A method of raising neutralizing antibodies against HIV, comprising administering to a subject an immunogenically effective amount of a complex of gp120 covalently bonded to a CD4 equivalent molecule in a pharmaceutically acceptable carrier.